ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time: May 26, 2005 / 10:00 a.m.

Site Contact(s): K-H: Karen Wiemelt, Susan Serreze

Phone: 303-692-2035 – CDPHE
303/312-6312 - EPA
303/966-4226 – DOE

Agency: CDPHE: Harlen Ainscough, Dave Kruchek, Carl Spreng
EPA: Larry Kimmel
DOE: Norma Castañeda

Purpose of Contact: A meeting was held on May 26, 2005 to discuss the Draft Closeout Report for North Firing Range, Draft Closeout Report for IHSS Group 800-3 and, Draft Closeout Report for IHSS Group 900-2 and SEBZ Area HRR Write ups, and BZCR HRR Writeup

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Discussion: See meeting minutes below.

Contact Record Prepared By: Susan Serreze

May 26, 2005 Comment Resolution Meetings
For
Draft Closeout Report North Firing Range
Draft Closeout Report IHSS Group 800-3
Draft Closeout Report IHSS Group 900-2
SEBZ Area HRR Writeups
BZCR HRR Write ups

A meeting was held on May 26, 2005 to discuss the Draft Closeout Report for North Firing Range, Draft Closeout Report for IHSS Group 800-3 and, Draft Closeout Report for IHSS Group 900-2 and SEBZ Area HRR Write ups, and BZCR HRR Writeup

Attendees

CDPHE: Harlen Ainscough, Dave Kruchek, Carl Spreng
EPA: Larry Kimmel, Todd Bechtel (Greystone)
DOE: Norma Castaneda
U.S. Fish and Wildlife: Mark Sattelberg

1/17

K-H Team: Karen Wiemelt, Susan Serreze

II. Report Status

Issues

No Sitewide issues were discussed.

Specific Comments

Draft Closeout Report for North Firing Range

The attached written comments were received from CDPHE and EPA. Both sets of comments are attached. The following resolutions were agreed to:

EPA
All comments will be addressed as stated. There was no further discussion.

CDPHE
All comments will be addressed as stated. There was no further discussion.

Draft Closeout Report for IHSS Group 800-3

The attached written comments were received from CDPHE. CDPHE comments are attached. The following resolutions were agreed to:

CDPHE
There was discussion on comment number 3. All other comments will be addressed as stated.

- Will add additional information to the discrepancy table and will add text explaining why not all locations were sampled.

Additional comments were received at the meeting. The following resolutions were agreed to:

- In Screen 4 of the SSRS, will review the information on well 83181 and correct as necessary.

Draft Closeout Report for IHSS Group 900-2

The attached written comments were received from CDPHE and EPA. The following resolutions were agreed to:

CDPHE
There was discussion on comment numbers 4, 14, and 15. All other comments will be addressed as stated.

1. It was agreed through the consultative process to use WRW soil ALs as the remediation goal.
14. Additional text will be added to explain why HRC was added.
15. Additional discussion regarding TCE concentrations and potential impact to downgradient wells will be added.

Additional comments were received at the meeting. The following resolutions were agreed to:

- Text will be added that states that the well that was removed will be reinstalled.

EPA

- All comments will be addressed as stated.

There was no further discussion.

SEBZ Area HRR Write up

The attached written comments were received from CDPHE and EPA. The following resolutions were agreed to:

There was discussion on the following comments – SE-209, Number 3 and SE-1600. All other comments will be addressed as stated.

- PAC SE-209 – As agreed to through the consultative process, analytes will be compared to the AL or cleanup standard in force at the time of the NFAA.
- PAC SE-1600 – Where possible, the decisions of the NFA working group meetings will be used. If these are not available process knowledge will be used to support the NFAA.

BZCR HRR Write up

The attached written comments were received from CDPHE. The following resolutions were agreed to:

- All comments will be addressed as stated.

Other Issues

There were no other issues.

V. Meetings

The next meeting will be held on June 9, 2005 at 10:00 AM in the Breckenridge Room.

EPA Comments on Draft Closeout Report
IHSS Group NE-1
North Firing Range
May 2005

May 18, 2005

Specific Comments

1. **Page ES-1, sixth paragraph, first sentence.** The sentence states, "ER accelerated action activities were conducted between October 26, 2005 and April 11, 2005." Please change the year on the October 26 date to 2004.

2. **Page 13, Section 2.3, second paragraph.** This paragraph discusses the rationale for using SW-846 6010 methodology instead of SW-846 6200 methodology. Please add a stronger statement stating why SW-846 6010 was used instead of SW-846 6200.

3. **Page 14, first paragraph.** Please summarize the multiple removals conducted at the North Firing Range as summarized on Page 38.

4. **Page 15, Figure 3.** Arsenic was not detected in the result from sample BU53-001, as the map currently shows. Please change the color of the dot associated with sample BU53-001 from red to green. Additionally, the color of the arsenic result associated with sample BU53-004 should be green. Please change the color of the sample text from black to green as the result exceeds the action level and the analysis was performed by SW-846 6200.

5. **Page 37, Section 4.1, third paragraph.** The sentence states, "The hazardous waste filled five dirt, rubble and trash (DRT) bags. " According to the Contact Record submitted on 3/29/05, three DRT bags will filled. Please check into this discrepancy.

6. **Page 39, Screen 1, second paragraph.** This paragraph discusses the rationale for using SW-846 6010 methodology instead of SW-846 6200 methodology. Please add a stronger statement stating why SW-846 6010 was used instead of SW-846 6200.

7. **Page 41, Section 11.0.** Same comment as Number 5 above.

8. **Page 44, Laboratory Control Sample Evaluation, first sentence.** The sentence states, "As indicated in Table 9, LCS analyses were run for all methods except gamma spectroscopy." Gamma spectroscopy was not analyzed for samples from the North Firing Range. Please remove this statement from the paragraph.

9. **Page 46, Sample Matrix Spike Evaluation.** This paragraph provides rationale and justification for percent recoveries not impacting project decisions. Please provide additional rationale for this statement.

10. **Page 47, Table 12.** Table 12 identifies several analytes with percent recoveries greater than 100 percent. Please provide rationale and justification for percent recoveries greater that 1,000 percent. Does this exceptionally high recovery potentially impact project decisions?

11. **Page 50, Section 13.3, second sentence.** This sentence states, "The validation percentage for alpha spectroscopy is below 25 percent; however, the ER Program V&V goal of 25 percent is being met." Alpha spectroscopy was not analyzed for samples from the North Firing Range. Please remove this statement from the sentence.

CDPHE Comments on Draft Closeout Report
IHSS Group NE-1
North Firing Range
May 2005

I hope I am not commenting on issues that have been included in other comments or already addressed, but I have the following comments:

1) Section 2.3 - Please provide a CR or specific data comparisons to support the statement regarding arsenic not needing to be remediated.

Only information provided in this Report is the CR dated Oct 21, 2004, which does not limit the remediation to Lead, and states that arsenic above 35 mg/kg will be remediated at the East Firing Range. Since arsenic has been found at the North Firing range above 35, there needs to be an explanation/documentation as to why it wasn't a concern requiring remediation. Need supporting documentation for the statement that Method 6200 is "up to several orders of magnitude greater than" results from the 6010 Method. There should also be some discussion of this in the DQA Section, since the 6200 results are documented in this Report.

2) Screen 2 - This discussion should be modified to recognize that the subsurface samples taken on the berm areas could become surface soil when the berms are "pushed in and the Site regraded." Also, other sample locations will be buried, causing changes to the sample locations and depths.

3) Section 8.1 - Please modify the text to recognize that only the contamination above WRW Levels has been removed. All of the "potential sources of contamination that existed" have not been removed. COC levels remain above background and two standard deviations, see Section 10.

CDPHE Comments on Draft Closeout Report
IHSS Group 800-3
UBC 883

Have the following comments:

1) Figure 7 - a) Please change the designation for the "Removed drain" to a dashed line to indicate it has been removed. This would be consistent with all of the other removed lines, which are also dashed.

b) Please show the tunnel as a remaining feature, at least the location of the northern end, continuing to the southern extent of this figure.

c) Please identify the locations of the foundation drains. These appear to be designated as the "roof drains". d) Please identify the location and ultimate disposition of the floor drain/sump that was located in the East Annex that drained to the east through a 3 inch cast iron foundation drain.

2) Please modify the text for consistency, when referring to "foundation drains" and "roof drains" please change all to foundation drains.

3) Since all of the proposed samples were not collected. Please discuss and include the results of water samples that were collected to demonstrate the absence of contamination. Also, please add discussion regarding the visual and radiological surveys that were conducted to identify the absence of contamination under the slab, pits, and other building structures where samples could not be, or were not, collected.

4) Please include a discussion regarding the characterization of the pipe that was removed on the west side of B883.

5) Table 9 - Please provide the volume of waste for all of the Waste Types.

6) Please modify the discussions in this document to include the information provided in the CRs provided in Appendix A. That is, the sampling conducted including soil, sediment, mud, and water. All contaminated portions of the building including the slab and at least one foot of gravel under the slab was removed. No staining was seen in the slab or gravel.

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Colorado Department of Public Health and Environment

Hazardous Materials & Waste Management Division
Comments
Draft Closeout Report
for
IHSS Group 900-2
IHSS 600-153 – Oil Burn Pit No. 2 and IHSS 900-154-Pallet Burn Site
May 2005

Specific Comments:

1. **Executive Summary:** In the second paragraph, page ES-1, "ranged from 12,000 disintegrations per minute" suggests activities in excess of 12,000. Please revise to "up to" as stated n Section 2.1.

2. In the first bullet, page ES-2, the removal of PCBs and VOCs greater than WRW will not protect ground water per se. It is more appropriate to state in effect, "to reduce potential impacts to ground water." If removal to WRWs were fully protective, there would have been no true need to apply HRC. These are factual distinctions that must be properly conveyed to the public throughout the document.

3. **Section 2.3:** In the fourth paragraph, please state whether the locations included both surface and subsurface soil samples.

4. In the fifth paragraph, while it is true that WRW action levels are directly applicable only to surface soils, not sub-surface soils, SSRS Screen 1 uses the WRW AL as a consideration in whether to extend remediation into the sub-surface. Since the WRW ALs have no specific link to groundwater and surface water protection, and an "in process" SSRS would have provided a clearer basis for subsurface soil remediation, the distinction noted is unnecessary.

5. **Figure 5:** A larger scale is needed for this figure. It is difficult to see which data boxes extend to which location symbol. Please consider two maps minimum, one showing the excavation and data for the main area and another for the northeast extension. Also, consider showing the phases of the step outs, if more than the northeast extension, with the relevant data for each, i.e., similar to Bowman's Pond. Lastly, relative to the 9 sampling locations associated with Functional Channel 5, please clearly show the trace of the channel.

6. **Table 1:** The Division notes the significant number of "refusals" within the characterization data. Please examine the data for the following: the deepest interval penetrated per boring; whether any constituent level in the deepest interval exceeded respective WRWs; whether excavation, with subsequent in process and confirmation sampling, occurred relative to any deepest interval =

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WRW exceedance pairing. It is assumed each shallower/WRW exceedance pairing resulted in lateral excavation until confirmed complete, please verify.

7. On page 17, CQ40-009, the northern sidewall of the southern end of the main excavation does not appear to be physically possible. Please evaluate and restate as necessary.

8. CQ40-011, the southern sidewall of the southern end appears to be redundant, and confusing. Perhaps middle or center of the southern sidewall is intended. Please evaluate and restate as necessary.

9. On page 20, CQ40-014, the southern sidewall of the southern end appears to be redundant, and confusing. Perhaps middle or center of the southern sidewall is intended. Please evaluate and restate as necessary.

10. On page 21, CQ41-068, the northern sidewall of the northern end appears to be redundant, and confusing. Perhaps middle or center of the northern sidewall is intended. Please evaluate and restate as necessary.

11. On page 23, CQ41-094, the "center of the northeast excavation area" implies a basal sample. However, the 8-14 foot interval suggests it is a sidewall sample (and would have allowed too much potential dilution if basal). Please identify which sidewall of the northeast extension is intended.

12. **Section 2.4:** In the last sentence, page 67, suggest that "or more" be deleted and "all" be changed to "each" for clarity. "[B]elow 10% or more" is an unusual construct.

13. **Section 7.0, Screen 1:** The focus of this SSRS should be modified for clarity. Rather than state pre-excavation WRW exceedances, the last sentence of the first paragraph is sufficient relative to IHSS 900-153. Make it clear that only arsenic in 900-154 subsurface soils prompt the Screen 1: "No".

14. **Screen 4:** The "No" response is questionable. Although it was agreed and WRW ALs were applied as subsurface soil remedial objectives, they are not scientifically objective as a "sufficient quantity of COC" test. If "No" was a true test of pathway and COC sufficiency, as Screen 4 questions, there would be no specific rationale, other than as a precaution, for applying HRC. Please address.

15. Further, it may be significant that tetrachloroethene (PCE) at 730 ug/L (ppb), in down gradient monitoring well 11897,is present in the subsurface confirmation samples at levels of 124, 322 and 380 ppm. See Table 3 confirmation samples, pages 57-58. Please compare the locations of the elevated residuals (i.e. if at the downgradient edge of excavation) and provide a more thorough evaluation of PCE quantity, relative to surface water standards, in Screen 4. TCE residuals are low and do not appear to be significant.

16. Since the SSRS is relevant to subsurface soils, delete the statement in the first paragraph of the screen, "...surface soils were below RCFA WRW ALs.

17. In the last sentence of Screen 4, specifically state that, "As a result, IHSS 900-153 is further evaluated in the Groundwater IM/IRA. We suggest that it may be insufficient to merely discuss the potential contributions to groundwater and surface water.

18. **Section 8.1:** Please clarify to what potential sources of contamination were removed. As described in Comment Nos. 2, 14 and 15, remediation relative to WRW ALs is not by necessity protective of ground water and surface water. Please consider using "potential sources of contamination were reduced". This approach then works in conjunction with the second bullet.

19. **Section 8.2:** The key near-term management recommendation should be further evaluation in the GW IM/IRA. In turn, the long-term stewardship recommendation should be an outgrowth of the GW IM/IRA evaluation.

20. **Section 10:** Please add a qualifier that residual contaminant concentrations are being further evaluated in the GW IM/IRA.

21. **Section 14.2.1:** "LCS results do not indicate whether the laboratory may be introducing a bias in the results" is observed on page 84, first paragraph. On page 88, only LCS recoveries were used as "EPA data validation guideline... other QC criteria" to dismiss the "significant number" of 0 percent recoveries of VOCs and pesticides. This appears to be "circular logic". Also evident in Table 13, are large negative values for Aroclor 1260 and PCE (a COC found in well 11897 and in subsurface soil confirmation samples). Sample matrix affects appear to have been significant and not adequately addressed through laboratory corrective actions. Please address, thoroughly, relative to project decisions and potential false negatives.

22. **Section 14.2.2:** Aroclor and PCE MSDs are far in excess of 35 percent, please address relative to Comment No. 21. Please change "evaluated" to "evaluating".

23. Under *Field Duplicate Evaluation*, page 92, the validity of the last bullet is questionable relative to Comment No. 21.

24. **Section 15:** In the first bullet, please use "to reduce potential impacts to ground water" rather than "to protect ground water."

EPA Comments on Draft Closeout Report
IHSS Group 900-2 (Oil Burn Pit and Pallet Burn Site)
May 2005

General Comment

Based on information presented in Table 2, it appears that only one dioxin sample was collected. Please include the rationale and documentation (i.e., contact record, meeting minutes) for collecting the sample and provide a short discussion on the results of this effort.

Specific Comments

1. **Page 9, Figure 5.** Much of the detail on this map is lost due to the large size, primarily to fit the data boxes. Consider creating 3 separate maps to illustrate the data: Characterization Data Map, In-Process Data Map, and Confirmation Data Map.

2. **Page 40, Table 3.** All results from sample CQ41-029 at a depth of 2.5 to 4.5 and 4.5 to 6.0 feet are not included on Figure 3. Please correct this omission.

3. **Page 76, Section 11.0.** This paragraph should be updated based on the final disposition of the wastes.

4. **Page 88, Table 13.** This table shows that a large number of matrix spike (MS) recoveries were outside of quality control limits. Additionally, Table 14 shows relative percent differences (RPDs) between MS and matrix spike duplicates (MSD). Please provide a more detailed discussion as to what may have caused these low recoveries (analyst error, instrument problems, etc.) or justify by including a discussion comparing the MS recoveries to the MSD recoveries (i.e. RPDs within limits).

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Colorado Department of Public Health and Environment
Hazardous Materials & Waste Management Division
Comments
Draft
PAC REFERENCE NUMBERS: SE-209, SE-1600, SE-1601, SE-1602 and SE-142-10
Comprehensive
Historical Release Report
2005

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General Comment:

1. A copy of the plates, in the near term, would be very beneficial to help identify less familiar PACs.

2. Has the "one large, unnamed pond" referred to in SE-1600 and SE-1601 been dispositioned?

Specific Comments:

SE-209:

1. **IHSS Investigations:** Please be specific in citing the CDPHE screen and added it to the references. It appears reference is to the Division's guidance at: http://www.cdphe.state.co.us/hm/riskplcy.pdf.

2. Please consider providing more detail on the sampling effort, i.e., number of samples, or relative frequency within the PAC relative to sampling sufficiency.

3. Please consider comparing the mercury occurrence to current WRW ALs. This would provide a uniform, present day, context to the information.

4. **No Further Action Recommendation:** Please be somewhat more specific on the "outcomes" of the OU-5 RFI/RI Report that supported NFA for the PAC.

SE-1600:

1. **Historical Summary:** Please identify Pond 6 parenthetically as PAC SW-196 to signify its inclusion in the HRR.

2. **PAC Investigations:** It is evident that the data noted in the section was unreliable relative to the decision of the Fiscal Year 2002 HRR Working Group to grant NFA status. It would be better to acknowledge the insufficiency and

advocate a process knowledge/professional judgment approach within the NFA Recommendation section as drawn, if possible, from the Working Group letter.

3. **References:** Please date-sequence the references.

SE-1601:

1. **Historical Summary:** Please identify Pond 6 parenthetically as PAC SW-196 to signify its inclusion in the HRR.
2. **PAC Investigations:** It is evident that the data noted in the section was unreliable relative to the decision of the Fiscal Year 2002 HRR Working Group to grant NFA status. (Samples in the "vicinity" are of limited value.) It would be better to acknowledge the insufficiency and advocate a process knowledge/professional judgment approach within the NFA Recommendation section as drawn, if possible, from the Working Group letter.

3. **References:** Please date-sequence the references.

SE-1602:

1. **IHSS Investigations:** It is unclear why the remedial actions are discussed in this section rather than a separate Remedy section. Is there a rationale for excluding discussion of the South Target Area Prebles habitat remediation effort? Since the 35mg/kg arsenic RAO is discussed, it seems appropriate to discuss the 220 mg/kg lead ecological objective.

2. Pease note, for those that may be interested, that a higher level of detail is provided in the referenced Closeout Report.

3. **No Further Action Recommendation:** Unless a uniform approach is being used, and is discussed in the HRR Introduction, this section should be titled NFAA, rather than NFA.

4. As written, the text suggests that the SSRS is the sole basis for the NFA (NFAA) decision. Please discuss the SSRS as a further basis, in addition to soil removal, for NFAA. Also, please modify "NFAA is required" to "... appropriate."

5. Either note: *residual ecological effects*, or *ecological effects will be further evaluated* in the last sentence of the section. Take credit for the ecological remediation of Preble's habitat.

6. **References:** Please date-sequence the references.

SE-142-10:

1. **Historical Summary:** Has Pond 6 been granted NFA/NFAA status? If not, should be straight forward since linked only to raw water supply.

2. The use of PAC SE 1601.1 and 1601.2 should be rectified with the PAC 1601 HRR narrative. Consistency needed.

3. In the last paragraph of the section, page 2; "monitoring" or monitored, the intent is unclear.

4. **PAC Investigations:** The relevance of the discussion of office buildings and landfills to Pond C1, on page 3, first paragraph, is not clear. Please address.

5. At the end of the first paragraph, page 3, please correct the reference to a 2006 document.

6. **Application of the Subsurface Soil Risk Screen:** The text suggests, i.e., current site conditions are evaluated, that the SSRS is the sole basis for an NFAA determination with no consideration of constituent levels in surface soil or sediment. An adjustment to the PAC narratives, for similar situations, may be necessary.

EPA Comments

HRR 2005
Southeast Buffer Zone
Various PACs

PAC Reference Number: SE-1600

Page 1, Historical Summary Section, second sentence. The sentence states, "Two other small ponds, Pond 6 and Pond 8-North (part of PAC SE-1600-1), and one large, unnamed pond were constructed in this area at about the same time." Based on the Southeast Buffer Zone, HRR Area IHSSs and PACs Map provided, it appears that the reference to "part of PAC SE-1600-1" should be PAC SE 1601.1. Please correct this discrepancy.

PAC Reference Number: SE-1601

Page 1, Historical Summary Section. Based on the Southeast Buffer Zone, HRR Area IHSSs and PACs Map provided, it appears that this PAC consists of SE-1601.1 and SE-1601.2. However, no mention of these two are made in the text. If these two areas do indeed make up PAC SE 1601, please include a sentence to that affect.

PAC Reference Number: SE-1602

Page 2, No Further Action Recommendation section, first paragraph, last sentence. The sentence states, "Therefore, it is concluded that NFAA is required at SE-1602." Please change "required" to "justified".

Page 3, References section, EPA reference. It appears that this reference is incomplete by the use of "XXXX". Please include the correct reference.

PAC Reference Number: SE-142.10

Page 1, Title Section. The IHSS Group is currently identified as NE-1. Should this be SE-1?

Page 3, first paragraph. This paragraph states that the greatest estimated risk for a future office worker is 3E-05 at AOC 1, or a landfill. However, the previous paragraph refers to this area, the South Interceptor Ditch and Woman Creek Source Area, as Area of Concern (AOC) 3. Please add additional information to clarify this logic or only refer to AOC 3 information.

CDPHE Comments

HRR 2005
BZCR

Just a few comments:

1) General...Site 3, 4, 13, etc. - This Table should include at least some description of the reason for no further action. Generally there is some rationale provided, such as all sample results were less than ALs, or what the site was used for. However, others (such as 3, 4, etc.) only indicate that an agreement was reached, with out providing any rationale. Please provide some rationale or other discription to identify why no further action is necessary.

2) Site 10, the Concrete Batching Plant - As discussed many times, this site is supposed to be part of the site reconfiguration, to remove the remaining concrete foundation and modify the slope to reduce erosion potential. Has this been, or will this be, done? Should put this into the "Final Disposition" box.

3) Site 14 - The south side was supposed to be included in the investigation with IHSS 133. Please indicate if it was, or why not.

3) Site 19 - Please include the discovery and disposition of the incinerator found under the concrete spoils with this description.

4) Site 20 - Include sampling performed and results in this discussion and/or indicate association with Site 1a.

5) Site 28 - This area was to be investigated with IHSS 216. Please indicate if it was or why not.

Required Distribution:

M. Aguilar, USEPA
S. Bell, DOE-RFFO
J. Berardini, K-H
B. Birk, DOE-RFFO
L. Brooks, K-H ESS
M. Broussard, K-H RISS
L. Butler, K-H RISS
G. Carnival, K-H RISS
N. Castaneda, DOE-RFFO
C. Deck, K-H Legal
S. Gunderson, CDPHE
M. Keating, K-H RISS
G. Kleeman, USEPA
D. Kruchek, CDPHE
D. Mayo, K-H RISS
R. McCallister, DOE-RFFO
J. Mead, K-H ESS
S. Nesta, K-H RISS
L. Norland, K-H RISS
K. North, K-H ESS
E. Pottorff, CDPHE
A. Primrose, K-H RISS
R. Schassburger, DOE-RFFO
S. Serreze, K-H RISS
D. Shelton, K-H ESS
C. Spreng, CDPHE
S. Surovchak, DOE-RFFO
K. Wiemelt, K-H RISS
C. Zahm, K-H Legal

Additional Distribution:

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